made near Whaley and Congleton in Cheshire, and Chapel-en-le-frith in Derbyshire, and also of other observations made for the Corporation of Liverpool at Rivington and in the valley of Roddlesworth near Preston in Lancashire, which have been communicated to him. The whole of these observations, carefully analysed and compared, have led the author to a conclusion opposite to that arrived at by Mr. Miller.

The author then proceeds to show that the details of Mr. Miller's own observations are in accordance with his, and that they fully bear out his views, and not those of that gentleman. Some apparent discrepancies in the results are pointed out and their cause explained by reference to peculiarities in the localities in which the observations were made, as shown by reference to a map accompanying this paper, and to the details given by Mr. Miller; so that the observations of this gentleman, when examined with reference to locality, fully confirm those of the author and of the authorities he has quoted, and establish the proposition, that as a general law, the quantity of rain deposited in the valleys and at the bottoms of hills is greater than in more elevated situations in the same locality.

"Microscopical examination of the contents of the Hepatic Ducts." By Thomas Wharton Jones, Esq., F.R.S.

On a microscopical examination of the matter contained in the larger hepatic ducts, the author has observed what he considers the debris of broken-up hepatic cells, in the form of free nuclei, a granulous substance, oil-globules and fragments of cell-walls; while in the matter contained in the smaller branches of the duct, entire cells of hepatic parenchyma may, in addition, be seen. These facts the author adduces as proofs that the cells of hepatic parenchyma are analogous to the endogenous cells, or true secretory corpuscles of the pancreas and other glands; and he infers that as the endogenous cells of other glands are constantly being reproduced, successively cast off, received into the radicles of the ducts (into which the containing vesicles or tubules of the former open), broken up and resolved into the secreted matter, so the cells of hepatic parenchyma are received into the radicles of the hepatic duct as they are successively cast off, and are there broken up and resolved into bile. This conclusion, namely, that the hepatic cells are analogous to the endogenous cells of other glands, as was first suggested by Professor Henle of Heidelberg, and not to glandular vesicles as has been assumed by some, the author considers as throwing light on the anatomical relation of the hepatic cells to the radicles of the hepatic ducts.

"Researches on the Function of the Intercostal Muscles, and on the Respiratory Movements, with some remarks upon Muscular Power in Man." By Dr. John Hutchinson. Communicated by Sir Benjamin C. Brodie, Bart., F.R.S.

This paper is an abridgement of a former one, bearing the same title, by the same author, which was read to the Society on the 17th